Name:

at1110paper_practice_test (v117)

1. Expand the following expression into standard form.

$$(6x - 5)^2$$

$36x^2 - 30x - 30x + 25$

$36x^2 - 60x + 25$

2. Factor the expression.

$$49x^2 - 64$$

$(7x + 8)(7x - 8)$

3. Expand the following expression into standard form.

$$(4x + 7)(9x + 8)$$

$36x^2 + 32x + 63x + 56$

$36x^2 + 95x + 56$

4. Solve the equation with factoring by grouping.

$$20x^2 - 24x - 15x + 18 \;=\; 0$$

$(4x - 3)(5x - 6) = 0$

$x = \frac{3}{4} \qquad x = \frac{6}{5}$

5. Solve the equation.

$$(4x+3)(2x-5) \;=\; 0$$

$x = \dfrac{-3}{4} \qquad x = \dfrac{5}{2}$

6. Factor the expression.

$$x^2 - x - 6$$

$(x+2)(x-3)$

7. Solve the equation.

$$6x^2 - 15x + 16 \;=\; 4x^2 - 2x - 5$$

$2x^2 - 13x + 21 = 0$

$(2x-7)(x-3) = 0$

$x = \dfrac{7}{2} \qquad x = 3$

8. Expand the following expression into standard form.

$$(5x+2)(5x-2)$$

$25x^2 - 10x + 10x - 4$

$25x^2 - 4$